

COMMENTARY

The study of forests and ecosystems: how to grow better trees: a commentary on performance evaluation and improvement strategies in health care

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'After all, most of us pass our time sheltered under the middle bulge in the bell curve. Huddled there in the mean, we look with envy and fear at the exceptional few pushing out the edges. The middling majority, whether in talent, in opportunity, in background, in luck, in brightness and beauty, are neither born great nor have greatness thrust upon them. So it surely seems.'

(James Hillman, *The Soul's Code*, 1996)

Comparisons are odious (Thomas Dekker, *Lust's Dominion*; Miguel de Cervantes Saavedra, *Don Quixote*; John Donne, *The Comparison*; William Shakespeare, *Much Ado About Nothing*). Perhaps. But comparisons are also the best way to obtain performance accountability. In health care, we are almost ready to accept that the use of uniform methods of quantification as comparisons to describe aspects of performance across people, and among institutions, regions or even health care environments is not odious. They could be, however, still clinically contemptible, loathsome regarding patient treatment, or societally irresponsible.

To be odious is a qualification – an evaluation of

that performance; comparisons are a quantification method denuded of value. 'Just the facts': that is what we are now seeking. Just the valid, reliable description of a phenomenon. Thus, it seems natural to apply the basic notions of epidemiology to all performance improvement models where the strategy is to: (a) ascertain the present status; (b) decide where to go; (c) try to go there, and (d) see if the goal has been reached. Overall, while this represents a common-sensical model, it is one that is rarely used in health care.

Towards that objective, I would propose that the famous 'W's of epidemiology can be re-organized to construct a systematic, stepwise, data-based and investigative performance improvement framework. I have previously referred to a model derived from the 'Who, When, Where and Why' of epidemiology as the '5 Ws of Quality Improvement' (Kazandjian 1992). However, given the justifiable caution health services research has recommended, I will leave the term 'quality' out of this discussion. Quality is perhaps best operationalized as the evaluation of the performance. This commentary is about the first step – describing that very performance.

The investigative framework

The proposed framework is composed of five questions, the 'five Ws', which provide the initial investigative and descriptive framework. The questions are as follows.

- Where are we? This provides the position analysis of any performer *vis à vis* a target. That target can be its previous performance or that of a peer. Agreement upon a common target is a requirement for a reliable position analysis.
- Why are we here? This is the gatekeeping question for any process analysis. The use of pathways, clinical protocols, management engineering concepts and production efficiency models forms the core strategy of this step. It is during this step that true benchmarking occurs through learning from processes adopted by peers.
- Where do we want to be? This is the essence of any strategic planning exercise. It is also the requisite foundation for any social accountability. Indeed, it is through such goal setting that future performance is gauged and evaluated.
- What do we do to get there? Tools and methods are discussed under this question. Trend, pattern, temporality, causality, association, attribution and other methods of diagnosis and interpretation address this fourth question.

What has been accomplished? The crown jewel of all questions! The one that supports, justifies or, *de facto*, rejects the usefulness of the process or the strategy. What good is it to engage in elaborate initiatives and yet remain unable to show their impact, i.e. their actual ability to alter the course of disease, prevent the spread of pathogens or behaviours, or ameliorate the quality of life of sufferers of maladies? Perhaps more importantly, there cannot be any accountability without demonstration of impact. I would propose that any Continuous Quality Improvement (CQI) initiative, no matter how scholarly, cannot justify its presence without a demonstrated social goodness. It is not enough to produce services efficiently; they have to be the right services at the right time for the right popular expectations.

The usefulness of the obvious

The five Ws represent a useful framework, a checklist, for both the novice in performance improvement strategies, and the seasoned expert. The framework of the five successive questions is neither new nor extraordinarily creative. It is the result of a systematization of the obvious – the common-sensical. It is derived from everyone's experiences in decision making related to any issue, not only health care. In essence, the proposed framework requires one rule for its proper application: *the five Ws have to be addressed in the above sequence; there cannot be a mix-and-match approach to performance assessment, evaluation and monitoring* – not to epidemiological intelligence gathering; not to performance improvement strategies. And I would propose that the propensity to mix-and-match is an often overlooked reason why health care providers do not experience more success in performance improvement.

How frequent is the sight of an over-excited, pupil-dilated health care professional post-exposure to the use of a flow diagram or a histogram, finally understanding the difference between causality and correlation, and realizing that a percentage is indeed a rate! How often it is, alas, that the same professional will return to the hospital with wonderful goals only to realize that the basic, necessary data are not systematically gathered, that personality differences between department heads cannot be overcome through pie charts, and that, in the absence of comparative information, there seems no reason to move one from where he or she is most comfortably situated.

Perhaps it is because epidemiology is an interdisciplinary science, or because its methods are universally valid, that hospital-centred performance improvement methods have used rates, trends, and comparative analysis as the framework of choice. Described as indicators, rates, measures, signposts or signals, they all have a common function – screening. As the group 'upon which things fall,' the *demos* in epidemiology can be replaced by *nosocomos* responsibly to describe the true hybrid application of epidemiology in hospital-centred performance measurement. I call that new application 'epinosocobiology', the study of what befalls hospitals – mortality rates, infection rates, readmission rates,

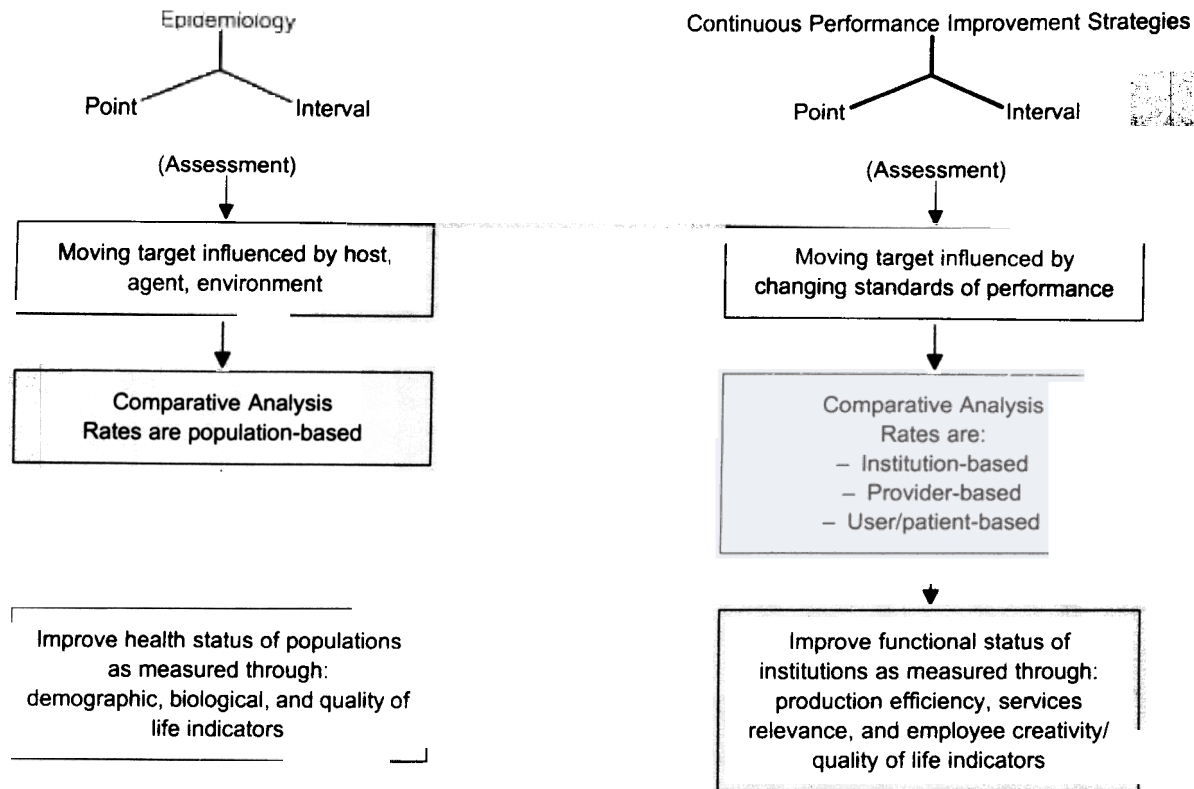


Figure 1 The science and art of CQI, from epidemiology to performance improvement

etc. The idea that epidemiology serves as the basis for all CQI activities (here described as 'epinosociology for hospitals') is explored in Fig.1.

It seems remarkable how little variation there is in investigative methods, target population education, or impact analysis, across the two columns of Fig.1. In a nutshell, the *exposures to quality* can be analogued to exposures to causative agents. In epidemiology, these agents can be microbes, radiation, chemicals, violence, etc. In epinosociology, these agents are employee motivation, availability of resources, incentive systems, service production methods and management. Taxonomically different, the agents are still similar in purpose – they provide the reason why the performance or profile is as it is. They also identify the aspects of performance that need to be changed. And that constitutes *process analysis*, without which there can be no outcomes analysis. Epinosociology is therefore the adapted science behind CQI activities, analysing the epidemiology of quality (Kazandjian 1995). Since the science underlying epidemiology is universal, CQI

activities will apply to all health care delivery environments and settings. As such, in order to apply the science of epinosociology successfully, we need to understand the environment and setting, not just the techniques of CQI. In a way, this commentary proposes that, in order to grow better trees, one has to understand the forest and the ecosystem. And that it is okay, in this case, to first see the forest while searching for the tree...

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